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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

5308-223CT

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on July 21, 2006Signature Katie WuTyped or printed name Katie Wu

Application Number

10/714,214

Filed

11/14/2003

First Named Inventor

Sumakeris et al.

Art Unit

1763

Examiner

Rakesh K. Dhingra

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record. 38,071
Registration number _____

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

Signature

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Telephone number

7/21/06

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

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**RESPONSE UNDER 37 C.F.R. 1.116 - EXPEDITED PROCEDURE
EXAMINING GROUP 1763**

Attorney Docket No. 5308-223CT

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Sumakeris et al.
Serial No.: 10/714,214
Filed: November 14, 2003
For: HOUSING ASSEMBLY FOR AN INDUCTION HEATING DEVICE INCLUDING LINER
OR SUSCEPTOR COATING

Group Art Unit: 1763
Examiner: Rakesh Kumar Dhingra
Confirmation No.: 2561

Date: July 21, 2006

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REASONS IN SUPPORT OF APPLICANT'S PRE-APPEAL REQUEST FOR REVIEW

Sir:

This document is submitted in support of the Pre-Appeal Brief Request for Review filed concurrently with a Notice of Appeal in compliance with 37 C.F.R. 41.31 and with the rules set out in the OG of July 12, 2005 for the New Appeal Brief Conference Pilot Program, which have been extended indefinitely.

It is not believed that an extension of time and/or additional fees, including fees for additional claims, are required, beyond those provided for in the accompanying documents. In the event that an extension of time is necessary to allow consideration of this paper, such an extension is hereby petitioned under 37 C.F.R. §1.136(a). Any additional fees believed to be due in connection with this paper may be charged to our Deposit Account No. 50-0220.

REMARKS

Applicants hereby request a Pre-Appeal Brief Review of the claims finally rejected in the Final Office Action mailed March 24, 2006 (hereinafter "Final Action") and the Advisory Action mailed July 3, 2006 (hereinafter "Advisory Action").

Applicants respectfully submit that the rejection of the currently pending claims is clearly erroneous because the pending claims are statutory and many of the recitations of the pending claims are not met by the cited references for at least the reasons discussed herein and in Applicant's previously filed Amendment dated June 19, 2006 (hereinafter "the Amendment").

Therefore, Applicants respectfully request review of the present application by an appeal conference prior to the filing of an appeal brief. In the interest of brevity and without waiving the right to argue additional grounds should this Petition be denied, Applicants will only discuss the recitations of independent Claims 1, 3, 4 and 5.

Claim 1:

The particular grounds for rejection of Claim 1 are not apparent from the record. The Examiner confirmed by telephone conference on July 6, 2006, that Claim 1 does not stand rejected under §102 or §103. As best understood, Claim 1 stands rejected under §112 and the Examiner contends that Claim 1 is "not in line with the invention" as described in the specification because it does not recite a second liner that is not removable from the susceptor without disassembly of the susceptor. Claim 1 recites:

1. A housing assembly for an induction heating device, the housing assembly defining a processing chamber and comprising:
 - a) a susceptor surrounding at least a portion of the processing chamber; and
 - b) a thermally conductive liner interposed between the susceptor and the processing chamber, wherein the liner is separately formed from the susceptor;
 - c) wherein the liner is removable from the susceptor without requiring disassembly of the susceptor.

For example, Applicants' specification discloses a housing assembly **100** including a liner **150** corresponding to the claimed "thermally conductive liner" that is removable from a susceptor (susceptor members **110**, **120**, **130**) without requiring disassembly of the susceptor¹. The subject matter Applicants regard as their invention is particularly pointed out and distinctly claimed in Claim 1, and does not require a liner corresponding to the liner **160**. The invention set forth in the claims must be presumed, in the absence of evidence to the contrary, to be that which applicants regard as their invention. MPEP Section 2172, citing *In re Moore*, 439 F.2d 1232, 169 USPQ 236 (CCPA 1971)².

A liner corresponding to the liner **160** is not (and is not described in the specification as)

¹ The liner members **152**, **154** of the liner **150** are placed on the bottom susceptor member **110** and can simply be lifted up and out of the susceptor through the front or rear opening **104**, **106**.

² MPEP Section 2172 further states: "The content of applicant's specification is not used as evidence that the scope of the claims is inconsistent with the subject matter which applicants regard as their invention. As noted in *In re Ehrreich*, 590 F.2d 902, 200 USPQ 504 (CCPA 1979), agreement, or lack thereof, between the claims and the specification is properly considered only with respect to 35 U.S.C. 112, first paragraph; it is irrelevant to compliance with the second paragraph of that section."

essential or critical. See MPEP Sections 2172.01 and 2164.08(c). Accordingly, the rejection under §112 is clearly in error and should be withdrawn. In the event the prior rejection under §103 is re-applied, Applicants respectfully direct the Conferees to Applicants' arguments at pages 7-11 of the Amendment.

Claim 3:

Claim 3 stands rejected under §103 over Kordina in view of Kuramata and Mezey. Claim 3 recites:

3. A housing assembly for an induction heating device, the housing assembly defining a processing chamber and comprising:
 - a) a susceptor surrounding at least a portion of the processing chamber; and
 - b) a thermally conductive liner interposed between the susceptor and the processing chamber, wherein the liner is separately formed from the susceptor;
 - c) wherein the susceptor includes a platter region, the housing assembly further including:
 - a platter adapted to support the article disposed in the processing chamber and overlying the platter region; and
 - an opening defined in the liner and overlying the platter region.

The Examiner acknowledges that no platter or liner opening is shown in **Figures 4-6** of European Patent No. EP 0956376 (Kordina). The Examiner's contention that it would obviously be required to include a plate corresponding to the plate 5 of the "prior art" apparatus of **Figure 2** is unsupported and contrary to the teachings of Kordina. In the apparatus of **Figures 4-6**, the plate 5 (of the **Figure 2** apparatus) is replaced with the plate 16. Moreover, there is no reason apparent why one would additionally place the plate 5 on the plate 16 (which would likely introduce undesirable thermal effects). Furthermore, Kordina teaches away from the proposed modification of providing an opening in the liner 16. Kordina explicitly teaches that the liners 16, 17 are to extend fully across the walls of the susceptor to prevent the presence of SiC plate edges in the susceptor channel and resulting hot spots³. Neither the susceptor 24 of Kuramata nor the disk 126 of Mezey is interposed between an article (e.g., wafer) and a susceptor as claimed. See also, the

³ Kordina states at col. 7, lines 37-46: "This means no severe etching due to so called hot spots, and the fact that the SiC-plates cover the entire bottom and ceiling of the susceptor channel 1 and that they are inserted between the bottom and top wall piece and the latter wall pieces means that the edges of the SiC-plates are hidden outside the susceptor channel, so that the problem of severe etching close thereto will be eliminated. Thus, the lifetime of the susceptor may be prolonged with respect to susceptors already known." (Emphasis added).

Amendment at pages 11-14.

Claim 4:

Claim 4 stands rejected under §103 over Kordina in view of Kuramata and Mezey. Claim 4 recites, *inter alia*:

- b) a thermally conductive liner interposed between the susceptor and the processing chamber, wherein the liner is separately formed from the susceptor;
- c) wherein the liner varies in thickness along at least a portion of its length.

Neither the liner 22 of Kuramata nor the plate 150 of Mezey varies in thickness along its length. The Advisory Action contends that each has a variable "effective thickness"⁴. In the claimed invention, the varied thickness of the liner permits the liner to remain in uniform proximity to the susceptor, thereby promoting a spatially uniform temperature distribution in the processing chamber. Neither the liner 22 of Kuramata nor the plate 150 of Mezey would provide this effect in their respective apparatus. See also, the Amendment at pages 14-15.

Claim 5:

Claim 5 stands rejected under §103 over Kordina in view of Hozlein. Claim 5 recites, *inter alia*:

- b) a thermally conductive liner interposed between the susceptor and the processing chamber, wherein the liner is separately formed from the susceptor;
- c) ...
- d) wherein the second material is selected from the group consisting of refractory metal carbides; and
- e) wherein the liner is interposed between the susceptor coating and the processing chamber.

The susceptor members 11, 12, 13, 14 of Kordina are formed of graphite coated with SiC, and Kordina does not teach the use of a coating selected from the group consisting of refractory metal carbides. The Examiner contends that it would have been obvious to modify Kordina to coat the susceptor members 11, 12, 13, 14 with TaC in view of the TaC coating 20 of Hölzlein. However, by design, the coating 20 of Hölzlein interfaces with the gas stream. See, e.g., Hölzlein at col. 7, lines 39-48 and lines 60-64. Thus, Hölzlein does not suggest the use of a coating of a

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Filed: November 14, 2003
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refractory metal carbide on a susceptor core, wherein a liner (e.g., the liner 16 or 17 of Kordina) is interposed between said coating and a processing chamber, and the motivation cited by the Examiner is inapplicable to the Kordina apparatus. See also, the Amendment at pages 15-16.

Accordingly, for at least the foregoing reasons, Applicants respectfully request that the present application be reviewed and that the rejection of independent Claims 1, 3, 4 and 5 be reversed by the appeal conference prior to the filing of an appeal brief.

Respectfully submitted,



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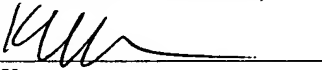
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Katie Wu